Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)	
Amendment of Part 15 regarding new requirements)	
and measurement guidelines for Access Broadband)	ET Docket No. 03-104
over Power Line Systems)	
)	
Carrier Current Systems, including Broadband Over)	ET Docket No. 04-37
Power Line Systems)	

Note: This a resubmission of the Petitioner's Original Petition filed on January 4, 2005 due to reasons set forth in the National Antenna Consortium/Amherst Alliance January 18, 2005 filing. It also contains new information and evidence from the results of a Freedom Of Information Act request made available on or about December 22, 2004. Those documents were unavailable to the Petitioner during the preparation of the original petition, and raise additional issues as explained below.

Petition for Reconsideration

The petitioner, Steven E. Matda, has been a licensed Extra class amateur radio operator (KE4MOB) for 11 years, and has worked in the telecommunications industry for over 5 years. He holds a Bachelor of Science in Chemical Engineering.

The petitioner asks that the rulemaking designated by the Commission as Docket 04-37 be held in abeyance until specific matters can be addressed as stated below.

Discussion

On February 23, 2004 the FCC released Docket 04-37 and invited comment. Over one thousand comments resulted from interested parties. As a result of these comments, on October 28, 2004 a final Report & Order was released. A review of the decisions, evidence and rulings made by the Commission raises very troubling questions about the validity of the Report & Order released on October 28. Among these:

A) Validity of the rationale behind the Rulemaking

There are two primary reasons that are given as the impetus of this Rulemaking procedure. The first is to foster competition among broadband providers, and the second is to foster broadband rollout to rural areas that heretofore not had adequate broadband service.

On December 22, 2004 the Commission released a report detailing the growth of High-Speed Internet Access Services (http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-255669A1.doc). A synopsis of the report is as follows:

- High-speed lines connecting homes and businesses to the Internet increased by 15% during the first half of 2004, from 28.2 million to 32.5 million lines, compared to a 20% increase, from 23.5 million to 28.2 million lines, during the second half of 2003. For the full twelve-month period ending June 30, 2004, high-speed lines increased by 38%.

- Of the 32.5 million high-speed lines in service, 30.1 million served residential and small business subscribers, a 16% increase from the 26.0 million residential and small business high-speed lines reported six months earlier. For the full twelve-month period ending June 30, 2004, high-speed lines for residential and small business subscribers increased by 46%.

As far as the technology breakdown, the report continues:

- High-speed connections in service over asymmetric digital subscriber line (ADSL) technologies increased by 20% during the first half of 2004, from 9.5 million to 11.4 million lines, compared to a 24% increase, from 7.7 million to 9.5 million lines, during the preceding six months. For the full twelve-month period ending June 30, 2004, high-speed ADSL increased by 49%.

- High-speed coaxial cable connections (cable modem service) increased by 13% during the first six months of 2004, from 16.4 million to 18.6 million lines, compared to a 20% increase in the second half of 2003, from 13.7 million to 16.4 million lines. For the full twelve-month period ending June 30, 2004, high-speed cable modem connections increased by 36%.

- The remaining 2.5 million high-speed connections in service are accounted for by satellite or wireless, wire line other than ADSL, and fiber high-speed connections.

And as far as advanced services are concerned:

- Of the 32.5 million high-speed lines, 23.5 million provided advanced services, i.e., services at speeds exceeding 200 kbps in both directions. Advanced services lines increased 15% during the first half of 2004, from 20.3 million to 23.5 million lines. For the full twelve-month period ending June 30, 2004, advanced services lines of all technology types increased by 44%.

- About 21.2 million of the 23.5 million advanced services lines served residential and small business subscribers.

- Among advanced services lines, ADSL lines increased by 24% during the first six months of 2004, compared to a 15% increase for cable modem service. For the full twelve-month period ending June 30, 2004, advanced services lines – service lines provided in excess of 200 kbps in both directions – for ADSL increased by 49% and cable modem connections increased by 47%.

Looking at this information, one comes to the conclusion that the high-speed Internet access market is vibrant. Subscriber numbers have increased over every timeframe studied in the report and every technology platform saw an increase in market usage. The fact is that competition does not need to be fostered in the broadband arena…it is already alive and well. Market forces are already at work in the nascent industry and no intervention by the FCC to "foster competition" is necessary.

As far as rural access is concerned, there is no evidence that proves that BPL is attractive in a rural setting. It should be noted that absolutely none of the BPL providers have conducted trials in any setting that could be considered remotely rural. Examples of communities that have seen BPL operations include Manassas, VA, Penn Yan, NY, Cottonwood, AZ, Cedar Rapids, IA, Raleigh-Durham and Charlotte, NC, among others. Further, the Report and Order contains nothing of substance to address or promote rural BPL, nor has any party examined the economic and/or technological factors involved in providing BPL to rural America. For example, should rural BPL systems have the same operational characteristics as urban BPL systems, especially considering the user density and physical distances involved? Nowhere has this been addressed.

B) The Report & Order ignores the interference potential to other co-located wire line services

The Report & Order spent an inordinate amount of space (and rightly so) examining the interference potential to other users of RF spectrum in the vicinity of power lines carrying BPL signals. Nowhere in the evidence presented was there an examination of the effects of BPL signals on other wire line services that may be co-located with BPL extraction/injection equipment. Often both Cable TV and landline telephone companies share the same pole with BPL equipment. This presents interference potential for hundreds, if not thousands of households. It has been shown, and generally agreed that BPL has the potential to interfere with RF-based services, often hundreds of feet away from power lines. *What effect does BPL signals have on signal-carrying conductors placed a few feet from BPL-carrying power lines? And how should the rules protect such services?* We don't know, because no one (other than the cable and phone companies)

asked such a question and the Report & Order failed to address their concerns with any substantive evidence or rulemaking content.

C) The Report & Order used information that was incomplete and/or unproven to make Rules.

The Commission relied heavily upon the NTIA for guidance during this Rulemaking. Quoting from the footnote found on Page 2 of the Report & Order:

> "In addition to its comments, NTIA has conducted an extensive technical study and analysis of Access BPL technology. This study is in two phases. Phase 1 examined the interference risks to radio reception in the immediate vicinity of overhead power lines used by Access BPL systems and suggests means for reducing these risks and techniques for mitigating local interference if it should occur. NTIA published the findings of its Phase 1 study in "Potential Interference From Broadband Over Power Line (BPL) Systems to Federal Government Radiocommunications at 1.7 - 80 MHz, Phase 1 Study," NTIA Report 04-413, April 2004 (NTIA Phase 1 Study). In Phase 2, *which is not yet complete, NTIA is evaluating the effectiveness of its Phase 1 recommendations and addressing potential interference via ionospheric propagation of BPL emissions from mature large-scale deployments of BPL networks.* NTIA's comments make reference to the NTIA Phase 1 Study, as supplemented by the *preliminary elements of its Phase 2 report*, which are presented in a technical appendix to those comments."

Let there be no mistake about it: the FCC is involved in a high stakes game of technological Russian roulette. **The Commission has created rules and procedures in this Report & Order that are being proven effective---or in this case ineffective---*ex post facto*.** In setting aside an ARRL petition to delay the proceeding until further evidence could be gathered:

> "We disagree with ARRL's position that there is no reason to act now in this proceeding and that we should delay our decision on rules for Access BPL to provide more time to develop rules to prevent this technology from causing harmful interference…We believe that it is important to set forth rules that will promote this service now, rather than delay."

In other words: in the Commission's eyes, it is far better than to promulgate rules that may not work and appear responsive than it is to formulate rules that are truly effective and appear prudent. This is tantamount to a breach of fiduciary duty by the FCC and puts the FCC's competence into question.

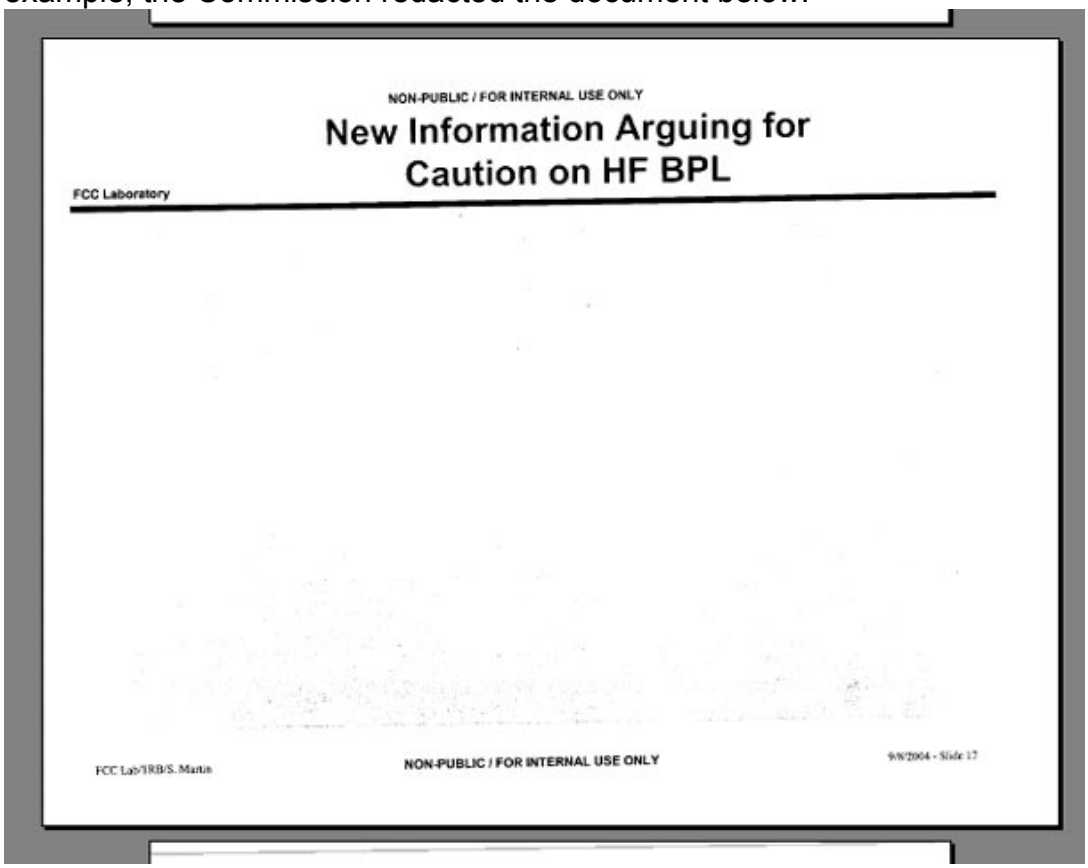
The petitioner further believes that the Commission acted improperly in allowing the NTIA Phase II preliminary findings to be used as a basis for rulemaking. In

response from a Freedom of Information Act request filed by the ARRL, the Commission on or around December 22, 2004 released hundreds of pages of documents that were submitted by either independent entities or by FCC employees for consideration during the rulemaking. Certain documents were redacted from the proceeding. FCC Office of Engineering and Technology Associate Chief Bruce Romano explained:

> "Certain portions of those presentations have been redacted, as they represent *preliminary or partial results* or staff opinions that were part of the deliberative process. Moreover, the redacted information was not relied on by the Commission in making its decision."

By using the Commission's own logic, if a presentation contains preliminary results, it should be redacted and not used to craft the final rule. The Commission knew the NTIA Phase II results were preliminary but chose to use them anyway, while at the same time redacting documents from other sources that were not preliminary. *This is an egregious procedural error that must be addressed.* Either those documents redacted should have been considered, or the NTIA partial results should have been redacted.

Further, the FCC has not proven that the redaction was done equitably. For example, the Commission redacted the document below:


NON-PUBLIC / FOR INTERNAL USE ONLY

New Information Arguing for Caution on HF BPL

FCC Laboratory

FCC Lab/IRB/S. Martin

NON-PUBLIC / FOR INTERNAL USE ONLY

9/8/2004 - Slide 17

Just exactly what did this particular slide contain? Did it contain information that showed Access BPL systems interfered with other spectrum users? Did it contain evidence of environmental or health impacts caused by Access BPL systems? The fact is that by ignoring such evidence as "New Information Arguing for Caution on HF BPL" the Commission has clearly shown that the proceeding was irrevocably biased in favor of BPL providers, and the FCC did not act fairly in the redaction of documents. *This information should have been considered as part of a balanced, rational rulemaking proceeding, yet it was not.*

At any rate, the FCC has crafted telecommunications law not based on fact, but on supposition, assumption, and wishful illusion based on an incomplete, partial, and biased evidence base. A rulemaking proceeding is only valid if the rules developed can actually put into action and be successful in an outcome that is desired. The NTIA has given a *preliminary* indication that the rules adopted by the Commission are proper. However, there exists woefully little evidence that the NTIA position is the best route to take, and even less evidence that competent rulemaking can be derived from such unproven and preliminary evidence.

D) The rules adopted either are not being enforced or do not work as intended.

During the timeframe in which this rulemaking proceeding took place, numerous field trials of BPL installations took place. And as sure as the sun rising in the morning, complaints were filed due to BPL emissions interfering with licensed stations that were attempting to communicate. These complaints were not few and far between, on the contrary, they were numerous and widespread. Some stations saw interference (and continue to see interference) every single day.

These licensees have made good faith efforts under the current rules in place that were supposed to prevent this exact scenario from occurring. The licensees have met with results that range between half-hearted compliance to outright hostility or derision by BPL providers. If the approach taken by the Commission and recommended by the NTIA actually *is* effective, then why must the Commission *order* a BPL provider maintain liaison with a local amateur radio club? Why are licensed users of spectrum experiencing widespread, frequent BPL-caused interference? If these rules are actually working, then why are these issues even being discussed?

It is clear, based on evidence that is quantifiable, repeatable and verifiable BPL has interfered with, and will continue to interfere with licensed stations, regardless of what the BPL providers indicate to the Commission. The rules as adopted have not proven to be effective in preventing interference nor do they facilitate a successful resolution to complaints in a timely and efficient manner.

Further, the “interference mitigation” approach codified by the Commission has had very limited success, and when it does not work the Commission has not enforced the next level of sanction. In fact, the ARRL has asked multiple times for a shutdown of the Briarcliff Manor, NY BPL trial. This trial has interfered with communications for *at least seven months*. Yet the FCC continues to grant BPL trials operating under experimental or Part 15 authorization *de facto* priority over licensed stations. According to the Report & Order licensed amateur stations are expected to move antennas, and public safety officials are expected to consult with BPL providers to make “special accommodations” so that BPL interference is not a problem in public safety radio systems. Licensed stations are expected (with no consideration whatsoever) by the Commission to bend to the will of a Part 15 service, in effect, to modify their operations and equipment so that the interference from BPL cannot be heard.

It should be noted that in the Report & Order, the Commission stated:

> “We emphasize that Access BPL systems will continue be treated as unlicensed Part 15 devices and as such will be subject to the conditions that they not cause harmful interference and that they cease operation if they do cause such interference, as required by our rules.”

If only in reality this were true!!! BPL systems *have and are at this very moment* causing interference, yet are allowed to operate by the Commission under the assumption that eventually the BPL provider will correct the problem. (On the other hand, if a licensed station interferes with BPL transmissions, will the FCC show the same latitude?) These approaches are completely out-of-line with the philosophy expressed in Part 15 and the Commission’s statement above.

In fact, it could be argued that position taken by the FCC does nothing but to exacerbate an already difficult situation. The FCC has relegated its enforcement authority to the sidelines, merely pushing paper back and forth between complainant and BPL provider. BPL providers report they have successfully remedied interference complaints, but complainants indicate the interference is not resolved, and the FCC’s only action is to ask the BPL provider to remedy the situation, *ad infinitum*. This is completely unacceptable. Commissioners have painted BPL as a win-win scenario for everyone...a “broadband Nirvana” to quote Commissioner Abernathy. Unfortunately, for licensees of BPL occupied spectrum it is a lose-lose scenario. Not only are licensees denied use of the spectrum to which they are granted, but also given no effective remedy when interference is experienced.

Conclusions

The petitioner asks that the rulemaking designated by the Commission as Docket 04-37 be held in abeyance until specific matters can be addressed as stated below. These matters include:

- The Rulemaking was based on rationales that have either failed to materialize or were invalid.
- The Rulemaking ignores potential interference to wire line services that may be co-located with BPL installations.
- The Rulemaking used information that was incomplete or unproven to develop regulations.
- The Commission erred in the redaction and inclusion of documents used in the rulemaking proceeding.
- The Rulemaking proceeding was biased.
- The Rules adopted do not work as intended and are not being enforced.

The petitioner thanks the Commission for its time and consideration.

Sincerely,

Steven E. Matda, KE4MOB
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January 19, 2005